

In the claims:

For the convenience of the Examiner, all claims being examined, whether or not amended, are presented below.

Please cancel, without prejudice, claims 1-62.

Please add new claims

1-62. **(Cancelled)**

63. **(Currently amended)** A preparation of a polypeptide comprising a hedgehog polypeptide sequence including at least 50 amino acid residues of an N-terminal half of a *hedgehog* protein, which polypeptide is formulated for topical application to hair skin.

64. **(Cancelled)**

65. **(Previously amended)** The preparation of claim 63, wherein the polypeptide includes at least 150 amino acids residues of an N-terminal half of the *hedgehog* protein.

66. **(Original)** The preparation of claim 63, wherein the polypeptide includes at least 100 amino acids of an extracellular domain of the hedgehog protein.

67. **(Previously amended)** The preparation of claim 63, wherein the polypeptide includes at least a portion of a hedgehog protein corresponding to a 19kd fragment of an extracellular domain of the hedgehog protein.

68. **(Original)** The preparation of claim 63, wherein the hedgehog protein is encoded by a gene of a vertebrate organism.

Please add the following new claims:

69. **(New)** The preparation of claim 63, wherein the hedgehog protein is post-translationally modified.

70. (New) The preparation of claim 69, wherein the hedgehog protein is modified with one or more lipophilic moieties.
71. (New) The preparation of claim 69, wherein the hedgehog polypeptide is modified with one or more sterol moieties.
72. (New) The preparation of claim 71, wherein the sterol moiety is cholesterol.
73. (New) The preparation of claim 70, wherein the one or more lipophilic moieties are one or more fatty acid moieties.
74. (New) The preparation of claim 73, wherein each fatty acid moiety is independently selected from myristoyl, palmitoyl, stearoyl, or arachidoyl.
75. (New) The preparation of claim 70, wherein the hedgehog polypeptide is modified with one or more aromatic hydrocarbons.